

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) A signal switching device comprising:

a selecting unit operable to select a video signal from a plurality of video signal inputs, each video signal input being transmitted from an input source device of a plurality of input source devices;

a memory for storing information;

a reading channel for reading the information from an output destination device that is an output destination of the video signal;

a reading unit operable to read the information through said reading channel, the information (i) indicating a physical address of said signal switching device ~~that is, the physical address of said signal switching device being generated by the output destination device and~~ including information indicating a physical address of the output destination device, and (ii) indicating a status of the output destination device;

a storing unit operable to store the information read by said reading unit into said memory;

a read-out unit operable to read out the information stored in said memory;

a plurality of read-out channels for outputting the information to the plurality of input source devices, each read-out channel of said plurality of read-out channels corresponding to a respective input source device of the plurality of input source devices; ~~and~~

an outputting unit operable to output the information indicating the status of the output destination device (i) through a read-out channel, of said plurality of read-out channels, that corresponds to the input source device transmitting the video signal selected by said selecting

unit and (ii) to the input source device transmitting the video signal selected by said selecting unit; and

an address setup unit operable to generate a respective physical address of each input source device of the plurality of input source devices, each respective physical address including information indicating the physical address of said signal switching device~~being based on the physical address of said signal switching device,~~

wherein said outputting unit is operable to output, to each respective input source device of the plurality of input source devices, the respective physical address of the input source device including the information indicating the physical address of said signal switching device generated by said address setup unit, such that each respective physical address corresponds to an input source device of the plurality of input source devices.

Claim 2 (Previously Presented) The signal switching device according to Claim 1, wherein said outputting unit is operable to output the information indicating the status of the output destination device only through said read-out channel that corresponds to the video signal selected by said selecting unit.

Claim 3 (Previously Presented) The signal switching device according to Claim 2 wherein said selecting unit is operable to select a video signal that corresponds to the physical address of an input source device of the plurality of input source devices.

Claim 4 (Previously Presented) The signal switching device according to Claim 1 further comprising:

a plurality of control signal transmission lines for transmitting a device control signal between the output destination device and the respective input source devices;

a voltage detecting unit operable to detect a voltage status of each control signal transmission of said plurality of control signal transmission lines; and

a power status control unit operable to change a status of a power supply of said signal switching device depending on the detected voltage status obtained by said voltage detecting unit.

Claim 5 (Previously Presented) The signal switching device according to Claim 4, wherein said power status control unit is operable to turn on the power supply of said signal switching device when a pull-up of a control signal transmission line of said plurality of control signal transmission lines is detected by said voltage detecting unit.

Claim 6 (Previously Presented) The signal switching device according to Claim 4, wherein said power status control unit is operable to turn off the power supply of said signal switching device when the detected voltage status of a control signal transmission line of said plurality of control signal transmission lines is decreased to a ground voltage.

Claim 7 (Previously Presented) The signal switching device according to Claim 1 further comprising:

a plurality of control signal transmission lines for transmitting a device control signal between the output destination device and the respective input source devices; and

a power supply control unit operable to control a power supply to all of or part of the output destination device and the respective input source devices depending on whether or not each respective control signal transmission line of said plurality of control signal transmission lines is used.

Claim 8 (Previously Presented) The signal switching device according to Claim 7, wherein said power supply control unit is operable to supply power when a message, being the device control signal, is transmitted to a respective control signal transmission line.

Claim 9 (Previously Presented) The signal switching device according to Claim 7, wherein said power supply control unit is operable to stop a power supply when a respective control signal transmission line is not used.

Claims 10-21 (Cancelled)

Claim 22 (Currently Amended) A signal switching method comprising:

a selecting step of selecting a video signal from a plurality of video signal inputs, each video signal input being transmitted from an input source device of a plurality of input source devices;

a reading step of reading information through a reading channel, the information (i) indicating a physical address of a signal switching device ~~that is, the physical address of the signal switching device being generated by the~~ an output destination device and including information indicating a physical address of the output destination device, and (ii) indicating a

status of ~~an~~ the output destination device that is an output destination of the video signal, and the reading channel being for reading the information from the output destination device;

a storing step of storing the information read in said reading step into a memory;

a read-out step of reading out the information stored in the memory; ~~and~~

an outputting step of outputting the information indicating the status of the output destination device (i) through a read-out channel of a plurality of read-out channels for outputting the information to the plurality of input source devices, each read-out channel of the plurality of read-out channels corresponding to a respective input source device of the plurality of input source devices, the read-out channel through which the information is output corresponding to the input source device transmitting the video signal selected by said selecting step, and (ii) to the input source device transmitting the video signal selected by said selecting step; and

an address generating step of generating a respective physical address of each input source device of the plurality of input source devices, each respective physical address including information indicating the physical address of the signal switching device ~~being based on the physical address of the signal switching device,~~

wherein said outputting step includes outputting, to each respective input source device of the plurality of input source devices, the respective physical address of the input source device including the information indicating the physical address of the signal switching device generated by said address generating step, such that each respective physical address corresponds to an input source device of the plurality of input source devices.

Claim 23 (Cancelled)

Claim 24 (Currently Amended) A computer-readable recording medium having a program recorded thereon, the program causing a computer to execute a method comprising:

a selecting step of selecting a video signal from a plurality of video signal inputs, each video signal input being transmitted from an input source device of a plurality of input source devices;

a reading step of reading information through a reading channel, the information (i) indicating a physical address of a main device ~~that is, the physical address of the main device~~ being generated by an output destination device and including information indicating a physical address of the output destination device ~~that is an output destination of the video signal~~, and (ii) indicating a status of ~~an~~ the output destination device that is an output destination of the video signal, and the reading channel being for reading the information from the output destination device;

a storing step of storing the information read in said reading step into a memory;

a read-out step of reading out the information stored in the memory; ~~and~~

an outputting step of outputting the information indicating the status of output destination device (i) through a read-out channel of a plurality of read-out channels for outputting the information to the plurality of input source devices, each read-out channel of the plurality of read-out channels corresponding to a respective input source device of the plurality of input source devices, the read-out channel through which the information is output corresponding to the input source device transmitting the video signal selected by said selecting step, and (ii) to the input source device transmitting the video signal selected by said selecting step; and

an address generating step of generating a respective physical address of each input source device of the plurality of input source devices, each respective physical address including information indicating the physical address of the main device~~-being based on the physical address of the main device~~,

wherein said outputting step includes outputting, to each respective input source device of the plurality of input source devices, the respective physical address of the input source device including the information indicating the physical address of the main device generated by said address generating step, such that each respective physical address corresponds to an input source device of the plurality of input source devices.

Claim 25 (Cancelled)

Claim 26 (Currently Amended) A signal switching device comprising:

a plurality of control signal transmission lines for transmitting a device control signal between an output destination device that is an output destination of a video signal and a plurality of input source devices;

a selecting unit operable to select a video signal from a plurality of video signal inputs, each video signal input being transmitted from an input source device of the plurality of input source devices;

a memory for storing information;

a reading channel for reading the information from the output destination device that is the output destination of the video signal;

a reading unit operable to read the information through said reading channel, the information (i) indicating a physical address of said signal switching device ~~that is, the physical address of said signal switching device~~ being generated by the output destination device and including information indicating a physical address of the output destination device, and (ii) indicating a status of the output destination device;

a storing unit operable to store the information read by said reading unit into said memory;

a read-out unit operable to read out the information stored in said memory;

a plurality of read-out channels for outputting the information to the plurality of input source devices, each read-out channel of said plurality of read-out channels corresponding to a respective input source device of the plurality of input source devices; ~~and~~

an outputting unit operable to output the information indicating the status of the output destination device through a read-out channel of the plurality of read-out channels to a respective input source device; and

an address setup unit operable to generate a respective physical address of each input source device of the plurality of input source devices, each respective physical address including information indicating the physical address of said signal switching device ~~being based on the physical address of said signal switching device~~,

wherein said outputting unit is operable to output, to each respective input source device of the plurality of input source devices, the respective physical address of the input source device including the information indicating the physical address of said signal switching device generated by said address setup unit, such that each respective physical address corresponds to an input source device of the plurality of input source devices, and

wherein said selecting unit is operable to select the video signal of the plurality of video input signals according to the device control signal transmitted, via said plurality of control signal transmission lines, from the input source device that received the information indicating the status of the output destination device.

Claim 27 (Previously Presented) The signal switching device according to claim 26, wherein said outputting unit is operable to output the information indicating the status of the output destination device through a read-out channel, of said plurality of read-out channels, that corresponds to the input source device transmitting the video signal selected by said selecting unit.

Claim 28 (Previously Presented) The signal switching device according to Claim 26, wherein said outputting unit is operable to output the information indicating the status of the output destination device only through said read-out channel that corresponds to the video signal selected by said selecting unit.

Claim 29 (Previously Presented) The signal switching device according to Claim 28 wherein said selecting unit is operable to select a video signal that corresponds to the physical address of an input source device of the plurality of input source devices.

Claim 30 (Previously Presented) The signal switching device according to Claim 26 further comprising:

a voltage detecting unit operable to detect a voltage status of each control signal transmission line of said plurality of control signal transmission lines; and

a power status control unit operable to change a status of a power supply of said signal switching device depending on the detected voltage status obtained by said voltage detecting unit.

Claim 31 (Previously Presented) The signal switching device according to Claim 30, wherein said power status control unit is operable to turn on the power supply of said signal switching device when a pull-up of a control signal transmission line of said plurality of control signal transmission lines is detected by said voltage detecting unit.

Claim 32 (Previously Presented) The signal switching device according to Claim 30, wherein said power status control unit is operable to turn off the power supply of said signal switching device when the detected voltage status of a control signal transmission line of said plurality of control signal transmission lines is decreased to a ground voltage.

Claim 33 (Previously Presented) The signal switching device according to Claim 26 further comprising a power supply control unit operable to control a power supply to all of or part of the output destination device and the respective input source devices depending on whether or not each respective control signal transmission line of said plurality of control signal transmission lines is used.

Claim 34 (Previously Presented) The signal switching device according to Claim 33, wherein said power supply control unit is operable to supply power when a message, being the device control signal, is transmitted to a respective control signal transmission line.

Claim 35 (Previously Presented) The signal switching device according to Claim 33, wherein said power supply control unit is operable to stop a power supply when a respective control signal transmission line is not used.

Claim 36 (Previously Presented) The signal switching device according to Claim 1, wherein said selecting unit is operable to select a video signal generated by the input source device that has received the information indicating the status of the output destination device, the video signal being generated based on the received information.